

### **REMARKS**

#### **RESTRICTION REQUIREMENT**

The Applicant herein notes that the previously-filed restriction requirement has been acknowledged and accepted by the Office.

#### **INFORMATION DISCLOSURE STATEMENT**

The Applicant is still gathering a full collection of information on the MP300 by Technic Inc. that was cited in the background section and will submit those documents in the next month. In the meantime, the Applicant directs the Examiner's attention to the Technic Inc. webpage on the MP300 (<http://www.technic.com/sft/mp300.htm>). Please note that the Applicant is not disregarding its duty to the USPTO, but is instead determined to put together a complete listing of the known art for the Examiner's review.

#### **DRAWINGS**

The Applicant herein submits revised and informal Figures page 2, which contains revised Prior Art Figure 3A, according to the Examiner's suggestion. If the Figure is appropriate and accepted, the Applicant will quickly have it converted and submitted as a Formal Replacement Page.

**35 USC §102**

Claims 1, 2, 9 and 12 are rejected under 35 USC §102(b) as being anticipated by Admitted Prior Art (Fig. 1, Page 1 of the Applicant's disclosure). The Applicants respectfully disagree.

Claim 1, as amended herein, recites:

“A plating system comprising:

an elongated upper channel and an elongated lower channel; and

a plating solution horizontal sparger comprising a series of inlets oriented to direct any plating solution flowing through the inlets into one and towards another of the upper and lower channels.”

As pointed out in the Specification, an improved plating system 100 is shown in **Figure 2** which provides for improved metal distribution over a work piece 900. In the improved system 100, the vertical spargers (spargers 11 in **Figure 1**) found in prior art plating systems are eliminated and fluid 800 enters the chamber 120 through the bottom of the chamber with the bottom of the chamber acting as a horizontal sparger 110. By eliminating the vertical spargers, the distance D2 between the part being plated 900 and the shields 130 can be decreased (with a corresponding decrease in the distance D4 between the fields forming the sides of the channel).

Applicant's Admitted Prior Art does not teach all of the claimed elements of the present application. “Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration.” *W. L. Gore & Assocs. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983) (citing *Soundsciber Corp. v. United States*, 360 F.2d 954, 148 USPQ 298, 301 (Ct. Cl.), *adopted*, 149 USPQ 640 (Ct. Cl. 1966)) Further, the prior art reference must disclose each element of the claimed invention “**arranged as in the claim**”. *Lindermann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984)(citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)).

Applicant's Admitted Prior Art does not teach a plating solution horizontal sparger comprising a series of inlets oriented to direct any plating solution flowing through the inlets into one and towards another of the upper and lower channels. Based on this argument, Applicant's Admitted Prior Art does not anticipate claim 1 of the present application because Applicant's Admitted Prior Art is lacking and/or missing at least one specific feature or structural recitation found in the present application, and in claim 1. Claim 1 is therefore allowable as not being anticipated by Applicant's Admitted Prior Art. Further, Applicant's Admitted Prior Art does not anticipate claims 2, 9 and 12 of the present application by virtue of their dependency on claim 1.

**35 USC §103**

Claims 3-8, 10-11 and 13-15 are rejected under 35 USC §103(a) as being unpatentable over Admitted Prior Art in view of Lace et al. The Applicants respectfully disagree.

Claim 1, as amended herein, recites:

“A plating system comprising:

an elongated upper channel and an elongated lower channel; and

a plating solution horizontal sparger comprising a series of inlets oriented to direct any plating solution flowing through the inlets into one and towards another of the upper and lower channels.”

Claim 15, as amended herein, recites:

“A plating system comprising:

an anode, a planar cathode, a horizontal sparger, and a plurality of electrically insulating shields; wherein

each of the plurality of shields is positioned between the anode and the cathode but not between the sparger and the cathode, and each of the plurality of shields is approximately co-planar with one of two reference planes that are substantially parallel to the cathode; and

the sparger is adapted to direct plating fluid toward and edge of the cathode along in a plane substantially co-planar with cathode.”

The Examiner is first respectfully requested to consider withdrawing this rejection with respect to claims 3-8, 10-11 and 13-14, because claims 3-8, 10-11 and 13-14 are dependent claims. Therefore, the independent claim from which these dependent claims are based must be rejected in

order for the dependent claims to be rejected. If the independent claim is deemed allowable (in this case, claim 1) then the dependent claims must be ruled allowable. The Applicant will herein address claims 3-8, 10-11 and 13-14 as dependent claims from claim 1 and will argue the allowability of independent claim 1 first.

As pointed out in the Specification, an improved plating system 100 is shown in **Figure 2** which provides for improved metal distribution over a work piece 900. In the improved system 100, the vertical spargers (spargers 11 in **Figure 1**) found in prior art plating systems are eliminated and fluid 800 enters the chamber 120 through the bottom of the chamber with the bottom of the chamber acting as a horizontal sparger 110. By eliminating the vertical spargers, the distance D2 between the part being plated 900 and the shields 130 can be decreased (with a corresponding decrease in the distance D4 between the fields forming the sides of the channel).

Lace et al. (US Patent 4772371) discloses an electroplating apparatus for high-speed electroplating a cathodic strip of metal passed therethrough. The Lace reference does not disclose a horizontal sparger that replaces vertical spargers, as shown in the Applicant's Admitted Prior Art, and therefore, Lace does not cure the deficiencies of Applicant's Admitted Prior Art in combination and cannot stand on its own to render claims 1 and 15 as obvious.

One of ordinary skill in the art would not read Applicant's Admitted Prior Art and Lace, alone or in combination, and find the motivation, suggestion or teaching to produce the plating system of claims 1 and claims 15 of the Applicant's present application. In addition, claims 3-8, 10-11 and 13-14 are also allowable by virtue of their dependency on independent claim 1.

Honeywell Docket No. H0002233 USA - 4018  
Buchalter Docket No.: H9925-2905

**REQUEST FOR ALLOWANCE**

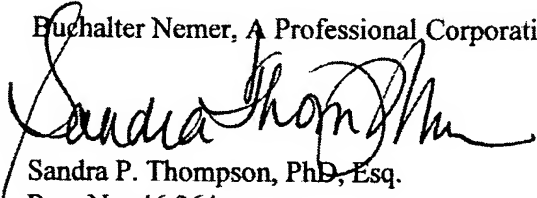
Claims 1-15 are pending in this application. The applicants request allowance of all pending claims.

Respectfully submitted,

Buchalter Nemer, A Professional Corporation

Dated: October 4, 2006

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**IN THE FIGURES**

Please replace page 2 of the Figures pages, which contains Figures 2, Prior Art Figure 3A and 3B with the attached informal Replacement Page.